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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,038	10/21/2003	Peter G. Webb	10990641-2	7535

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AGILENT TECHNOLOGIES, INC.
Legal Department, DL429
Intellectual Property Administration
P. O. Box 7599
Loveland, CO 80537-0599

EXAMINER

LIN, JERRY

ART UNIT	PAPER NUMBER
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1631

MAIL DATE	DELIVERY MODE
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02/07/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/691,038	Applicant(s) WEBB ET AL.	
	Examiner Jerry Lin	Art Unit 1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-48 is/are pending in the application.
- 4a) Of the above claim(s) 46 and 47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-45 and 48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Species C, drawn to a droplet pattern previously dispensed from a dispensing head in the reply filed on November 13, 2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Status of the Claims

Claims 21-45 and 48 are under examination as claims 21, 37, 40, and 44 are drawn to elected species C, drawn to a droplet pattern previously dispensed from a dispensing head.

Claims 46 and 47 are withdrawn.

Specification

2. The use of the trademark PROGRAMMABLE ERROR CORRECTION PKE 80 has been noted in this application. Trademarks should be capitalized wherever they appear and be accompanied by the generic terminology. Please capitalize all trademarks

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 21-45 and 48 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a NEW MATTER rejection.

Applicants have amended claims 21, 37, 40, and 44 to include the new limitation of where a sensor views a droplet pattern previously dispensed from a dispensing head. Applicant have cited page 6, line 30 - page 12, line 7 for support. However, these cited pages do not appear to mention sensors that view droplet patterns previously dispensed from a dispensing head. Pages 6-8 define terms used in the application, but do not mention droplet pattern previously dispensed from a dispensing head. Pages 8-11 describe the particular components used in the claimed apparatus, but do not mention viewing droplet pattern previously dispensed from a dispensing head. The paragraph

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beginning on page 11 and ending on page 12 does disclose the use of camera, but the cameras are used to view fiducial markings on the head or fiducial markings on the substrate. The cameras are not used to view droplet patterns previously dispensed from a dispensing head. Furthermore, the rest of the specification does not disclose sensors that view droplet patterns previously dispensed from a dispensing head.

Because the new limitations were disclosed in the specification or in the claims at the time of filing, the new amendments are NEW MATTER.

This rejection is necessitated by amendment.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 21-45 and 48 are rejected under 35 U.S.C. 102(a) as being anticipated by Blanchard (WO 98/41531).

The instant claims are drawn to an apparatus for fabricating a addressable array of biopolymer probes which includes a sensor that views droplets previously dispensed from a dispensing head and senses errors between the target array pattern and the actual array pattern deposited, and a processor which uses the error to produce a corrected drive pattern that reduces the discrepancy between the target and actual array patterns.

Regarding claims 21, 25- 27, 29, 30, 37, 39, 40-45, and 48, Blanchard teaches an apparatus for fabricating an addressable array of biopolymer probes on a substrate (page 6, lines 10-14) which includes a sensor which senses at least one operating parameter for an error (pages 62-64; pages 75-76); where the sensor views droplets previously dispensed from a dispensing head (page 78, line 24 - page 79, line 12); producing a discrepancy between the target array pattern and actual pattern deposited (page 7, lines 10-30) and a processor (page 7, lines 27-30) which corrects the drive pattern to reduce the discrepancy between the target and actual array patterns (page 77, lines 5-25). Furthermore, Blanchard teaches that their method is automated (or a computer program product) with position control for deposition (page 7, lines 10-30) which indicates a memory with a target drive pattern or corrected drive pattern.

Regarding claims 22- 24, 28, 31- 36, and 38, Blanchard teaches an apparatus with a dispensing head and a transport system (page 56, line 24-page 57, line 24), wherein the drive pattern controls the operation of the transport system (page 57, lines 3-5), and the operating parameter is the position of the substrate or dispensing head and the sensor views the substrate or dispensing head (pages 62-64; pages 75-76).

Response to Arguments

7. Applicants have responded to this rejection by stating that Blanchard's camera does not view the print heads or nozzle. However, the limitations of viewing the dispensing head and nozzle are drawn to non-elected species of the instant claims. Limitations from non-elected species of the instant claim cannot be used to distinguish

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the claims from the prior art. The instant claims have been examined in regard to the elected species C, where a sensor views a droplet pattern previously dispensed from a dispensing head.

Applicants also state that Blanchard does not teach where a sensor views a droplet pattern previously dispensed from a dispensing head. The Examiner disagrees. Blanchard teaches that after scanning (i.e., depositing the droplets or droplet pattern), a digital image of the array is taken and the alignment is checked (page 78, line 24 - page 79, line 12). By taking a digital image after the droplet pattern is dispensed, Blanchard teaches where a sensor views a droplet pattern previously dispensed from a dispensing head.

This rejection is maintained and modified as necessitated by amendment.

Withdrawn Rejections

8. Applicant's arguments and amendments, filed June 1, 2007, with respect to the rejections made under 35 U.S.C. §112 2nd paragraph have been fully considered and are persuasive. These rejections have been withdrawn.

Conclusion

No claim is allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry Lin whose telephone number is (571) 272-2561. The examiner can normally be reached on 10:00-6:30, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marjorie A. Moran can be reached on (571) 272-0720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JL/

/Marjorie A. Moran/
SPE, AU 1631
2/1/2008